Let's look at some solutions to the interclass problem.

How should you study for quizzes/tests? Do I have answers for book questions?

Why are there more constructs in C than we have discussed?

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pow(x, 2) is MUCH slower than x*x.
Combining function calls and conditionals also allows us to begin exploring recursion.

Recursive functions are simply functions that call themselves. The call must be conditional otherwise you have infinite recursion.

To really see how recursion works we need to understand the call stack. This is a bank of memory on the computer the program uses to store variables and information related to what is happening in the program. Each time a function is called, a new stack frame is “pushed” with the memory that function needs. When the function returns the stack frame is “popped”.
If statements can do everything you need, but for some situations they are overly bulky.

The switch statement allows you to select from many possible paths based on an integer argument.

The syntax of switch is as follows.

```
switch(int-expression) {
    case intConst1:
        statements
        break;
    case intConst2:
        statements
        break;
    ...
    default:
        statements
}
```
Let's use the things we've talked about today in a sample program.
What happens if you accidentally leave out a break statement in a switch?

Interclass Problem – Do problem 50 on page 295. Actually, do it twice. Write one function that does it with if and another with switch. Give each function a name fitting for how it works.